REMARKS

Applicants thank the Examiner for consideration given the present application. Claims 30, 31, 36-38, 43-46, 48, 49, 51-54, 56, 57, 59-64 are currently pending the present application. Claim 64 have been added and claims 34, 35, 41, 42, 50, and 58 have been cancelled through this reply. Claims 30, 31, 37, 38, 44, and 52 are independent. Applicants respectfully request reconsideration of the rejected claims in light of the amendment and remarks presented herein, and earnestly seek allowance of all pending claims.

The Claims Defined Patentable Subject Matter

The Office Action rejects claims 30, 31, 36-40, 43, 45-49, 51, 53, 54, 56, 57 and 59-63 under 35 U.S.C. § 103(a) over Applicants' Admitted prior art (AAPA) in view of U.S. Patent No. 5,907,637 to Murashita et al. (Murashita) further in view of US Patent No. 5,781,237 to Fukuda (Fukuda). These rejections are respectfully traversed.

The Examiner acknowledges that the AAPA and Murashita fail to teach or suggest the plurality of pieces of position information are rational number position information represented by a rational number, and alleges that Fukuda cures the deficiencies of the AAPA and Murashita. *See Office Action, page 4.* Applicants respectfully disagree.

Fukuda discloses a video coding apparatus wherein input video data is divided into blocks composed of a plurality of pixels in a block divider 101. The discrete cosine transform (DCT) is effected by a DCT device 102 and a transform coefficient is weighted according to visual characteristics of a human being in a multiplier 114. The block of weighted transform coefficients is fed into a first quantizer and a second quantizer. A first variable link coder 107 processes an output of the first quantizer 104 by variable length decoding to output a first bit stream, and a second variable length decoder 108 processes an output of the second quantizer 105 by variable length coding to output a second bit stream. *See Fukuda, column 3, line 54 through column 4, line 14.* A function estimator 112 estimates a function $F(q,j)$ by relating the generated code quantity $b(j)$ and quantizing perimeter q in the period $t(j)$ with a function $b(j) = f(q,j)$. A code quantity assigner 113 determines code quantity $bt(j)$ to be assigned in the period

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t(j), so that the generated code quantity in the period T maybe equal to specific code quantity BT assigned in the period T. *See column 4, lines 15-25.*

Within the code quantity assigner 113, the initial quantizing parameter is fed into a quantizing parameter updating circuit 504. A comparator 503 compares the sum of the code quantity b(j) determined in the code quantity adder 502 and the specified code quantity BT assigned to the period T. The output of the comparator 503 is entered into a quantizing parameter updating circuit 504 and a switch 505. *See column 7, lines 19-43.*

The quantizing parameter updating circuit 504 includes a first switch 606 connected to a terminal 611 and a second switch 607 is connected to terminal 610. The quantizing parameter qt(j) is fed into a third memory 608, a decrement calculator 601 and an adder 603. The decrement calculator 601 calculates the decrement db(j) of the code quantity when specified quantity qs is added to the quantizing parameter q(j). *See column 8, lines 8-23.*

The Examiner relies on the specified quantity qs as disclosing the rational number position information as recited in independent claim 1. Specified quantity qs is disclosed as being used for the quantizing parameter updating circuit 504. However, quantity qs is not disclosed as or relating to a plurality of pieces of <u>position information</u> to be encoded, wherein the position information is represented by a rational number. Furthermore, the decrement db (j) is concerned with the quantizing parameter and does not concern position information. Thus, the applied references, alone or in any combination, fail to teach or suggest that "the plurality of pieces of position information are rational number position information represented by a rational number" as recited in independent claims 30, 31, 37, 44 and 52 and similarly recited in independent claim 38.

Additionally, Fukuda cannot teach or suggest that "<u>the predetermined order relationship is determined by the order of magnitude of resolution of the rational number</u>," as recited in independent claims 30, 31, 37, 38, 44 and 52. Accordingly, Fukuda fails to cure the deficiencies of AAPA and Murashita.

For at least the reasons stated above, claims 30, 31, 37, 38, 44 and 52 are patentably distinct from the applied references. The dependent claims are at least allowable by virtue of there dependence on corresponding allowable independent claims 30, 31, 37, 38, 44 and 52.

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Accordingly, withdrawal of the rejection of the claims based on the applied references is respectfully requested.

New Claim 64 Is Patentable

New claim 64 is added. New claim 64 is patentable at least due to its dependence from allowable independent claim 30.

CONCLUSION

Should there be any outstanding matters that need to be resolved in the present application; the Examiner is respectfully requested to contact John R. Sanders, Reg. No. 60,166 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

Dated: November 24, 2008   Respectfully submitted,
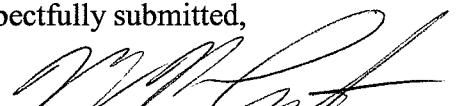
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